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(54) OPTICAL WAVEGUIDE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an optical waveguide optimal to an optical waveguide having a spot size converting part which has small polarizing dependence and excessive loss, has a simple process and in which mass production is possible at low cost and its manufacturing method.

SOLUTION: The optical waveguide 10 is provided with a core 1 and clads 4 and 5 on a substrate 3, a width and a thickness of the tip end part 2 of the core 1 are reduced in a taper shape in the width direction and in the thickness direction toward the tip end of the core. The tip end part of the core functions as the spot size converting part 2. The method for manufacturing the optical waveguide 10 is composed of at least a process for forming a difference in level by removing a part of the core and a slope forming process for accumulating thin films on the difference in level and forming the difference in level into a smooth slope. In the method, since the spot size of the combined part with the optical fiber is enlarged with a simple method, an optical waveguide device which has small size and loss is manufactured at low cost.

